# BRUHAT BANGALORE MAHANAGARA PALIKE

## YELAHANKA ZONE

**Estimate Cost Rs. 4000000.00**

**Name of Work:** Detailed Estimate for the Work of Drilling of Borewells, Providing Pump and Motor Bellahalli in Ward No. 05, Byatarayanapura Sub Division.

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | **Drilling and Providing Pump and Motor** | | | | | | | | |
| 1 | Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR) | Each BW | | | | | | | |
| | | | 1 | | | | | | |
| | | | 1 | | | | | | |
| | | | 1 | | | | | | |
| | | | 1 | | | | | | |
| | | | 1 | | | | | | |
| | | | 1 | | | | | | |
| | | | **6** | | | | **6** | 1938.46 | **11631.00** |
| | Basic Rate | 1882.00 | | | | | | | |
| | 3% area weightage | 56.46 | | | | | | | |
| | **Total** | **1938.46** | | | | | | | |
| 2 | Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR) | Rmtr | | | | | | | |
| | 0 to 50 m | | 6 | 50.00 | | | **300.00** | 315.18 | **94554.00** |
| | 50 to 100 m | | 6 | 50.00 | | | **300.00** | 412.00 | **123600.00** |
| | 100 to 150 m | | 6 | 50.00 | | | **300.00** | 458.35 | **137505.00** |
| | 150 to 200 m | | 6 | 50.00 | | | **300.00** | 484.10 | **145230.00** |
| | 200 to 250 m | | 6 | 50.00 | | | **300.00** | 560.32 | **168096.00** |
| | 250 to 310 m | | 6 | 60.00 | | | **360.00** | 600.49 | **216176.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 3 | Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick ck electric resistance continous welded midle steel tube material confirming to IS 1387/!993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR) | Rmtr | | | | | | | |
| | | | 6 | 45.00 | | | **270.00** | 1364.75 | **368483.00** |
| | Basic Rate | 1325.00 | | | | | | | |
| | 3% area weightage | 39.75 | | | | | | | |
| | **Total** | **1364.75** | | | | | | | |
| | | | | | | | | | |
| 4 | Providing and fixing 250mm dia PVC pipe and as per specification and directions. ( BWSSB SR 13-14, P.No.53 I.no.1 of sl.no.11.) | Rmtr | | | | | | | |
| | | | 6 | 13.00 | | | **78.00** | 1133.00 | **88374.00** |
| | Basic Rate | 1100.00 | | | | | | | |
| | 3% area weightage | 33.00 | | | | | | | |
| | **Total** | **1133.00** | | | | | | | |
| | | | | | | | | | |
| 5 | 175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR) | Each | | | | | | | |
| | | | 6 | | | | **6** | 103.00 | **618.00** |
| | | | | | | | | | |
| | Basic Rate | 100.00 | | | | | | | |
| | 3% area weightage | 3.00 | | | | | | | |
| | **Total** | **103.00** | | | | | | | |
| | | | | | | | | | |
| 6 | M.S. Casing pipe collars 'C' Class (P.NO-III, I.NO-86, PRED 12-13 SR) | Each | 6 | 8.00 | | | **48** | 154.50 | **7416.00** |
| | | | | | | | | | |
| | Basic Rate | 150.00 | | | | | | | |
| | 3% area weightage | 4.50 | | | | | | | |
| | **Total** | **154.50** | | | | | | | |
| 7 | Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15.000 HP 25 stage (P.NO-XXXXIII, I.NO-33, PWD SR 13-14) | No | | | | | | | |
| | 15 HP 30 Stage | | 6 | | | | **6** | 75541.17 | **453247.00** |
| | Basic Rate | 71265.25 | | | | | | | |
| | 6% area weightage | 4275.92 | | | | | | | |
| | **Total** | **75541.17** | | | | | | | |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings ch as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings)b50mm dia GI pipe (SR 13-14 PWD, P.No.XVII Sl.no. 509) | Rmtr | | | | | | | |
| | | | 6 | 275.00 | | | **1650.00** | 340.26 | **561429.00** |
| | Basic Rate | 321.00 | | | | | | | |
| | 6% area weightage | 19.26 | | | | | | | |
| | **Total** | **340.26** | | | | | | | |
| 9 | Providing & fixing heavy duty collar (P.NO-III, I.NO-86, PRED 12-13 SR) | | | | | | | | |
| | | | 6 | 46.00 | | | **276.00** | 159.00 | **43884.00** |
| | Basic Rate | 150.00 | | | | | | | |
| | 6% area weightage | 9.00 | | | | | | | |
| | **Total** | **159.00** | | | | | | | |
| 10 | Supplying and drawing 3 core PVC Sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS: 8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 volts 4 sqmm of 56 strands 0.3mm dia (P.NO-535, I.NO-30 (c), BWSSB 12-13 SR) | Mtr | | | | | | | |
| | | | 6 | 560.00 | | | **3360.00** | 164.29 | **551998.00** |
| | Basic Rate | 159.50 | | | | | | | |
| | 6% area weightage | 4.79 | | | | | | | |
| | **Total** | **164.29** | | | | | | | |
| 11 | Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR) | No. | | | | | | | |
| | | | 6 | | | | **6.00** | 14800.00 | **88800.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 12 | Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm (P.NO-530, I.NO-39 b, BWSSB SR '13-14) | Sqm | | | | | | | |
| A | | | 6 | 1100.00 | 20.00 | | **132000.00** | 0.34 | **44867.00** |
| | Basic Rate | 0.33 | | | | | | | |
| | 3% area weightage | 0.01 | | | | | | | |
| | **Total** | **0.34** | | | | | | | |
| 13 | Providing & Fixing of clamps set and borewell cap to the pump (MR) | No's | | | | | | | |
| | | | 6 | | | | 6.00 | 690.00 | **4140.00** |
| 14 | Supplying & delivery of brand new best make non return valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark ( 50mm Gate wheel Valve. (PWD SR 13-14, P.NO.XXIV, Sl.no, 673) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 1696.00 | **30528.00** |
| | Basic Rate | 1600 | | | | | | | |
| | 6% area weightage | 96.00 | | | | | | | |
| | Total | 1696.00 | | | | | | | |
| 15 | Supplying and delivery of brand new best make Gate Valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark . 50mm Gate Valve for distributer pipeline. 50mm dia (PWD SR 13-14, P.NO.XXIV, Sl.no, 659) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 1213.70 | **21847.00** |
| | Basic Rate | 1145 | | | | | | | |
| | 6% area weightage | 68.70 | | | | | | | |
| | Total | 1213.70 | | | | | | | |
| 16 | Providing and fixing of 50mm GI bend to motor (PWD SR 13-14, P.NO.XXXVIII GI FITTINGS TABLE) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 232.14 | **4179.00** |
| | Basic Rate | 219 | | | | | | | |
| | 6% area weightage | 13.14 | | | | | | | |
| | Total | 232.14 | | | | | | | |
| 17 | Providing and fixing of 50mm GI Nipple to motor (PWD SR 13-14, P.NO.XXXVIII GI FITTINGS TABLE) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 110.56 | **1990.00** |
| | Basic Rate | 104.3 | | | | | | | |
| | 6% area weightage | 6.26 | | | | | | | |
| | Total | 110.56 | | | | | | | |
| 18 | Providing and fixing of 50mm GI union to the motor ( (PWD SR 13-14, P.NO.XXXVIII GI FITTINGS TABLE) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 237.12 | **4268.00** |
| | Basic Rate | 223.7 | | | | | | | |
| | 6% area weightage | 13.42 | | | | | | | |
| | Total | 237.12 | | | | | | | |
| 19 | Labour Charges for end connection ( MR) | No's | | | | | | | |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | | | 6 | | | | **6.00** | 400.00 | **2400.00** |
| 20 | Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 564, I.No - 3, BWSSB SR 13-14) | Per length | | | | | | | |
| | | | 6 | 51.00 | | | **306.00** | 90.64 | **27736.00** |
| | Basic Rate | 88 | | | | | | | |
| | 3% area weightage | 2.64 | | | | | | | |
| | Total | 90.64 | | | | | | | |
| 21 | Erection of combined panel board meter board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type. (MR) | No's | | | | | | | |
| | | | 6 | 1.00 | | | **6.00** | 475.00 | **2850.00** |
| 22 | Supplying and fixing miniature circuit breakers/isolators in existing MCB distribution boards using necessary fixing materials and wiring complete as required, 40 to 63 Amps DP (P.NO - 526, I.NO - 13D (a), BWSSB SR 13-14) | No's | | | | | | | |
| | | | 6 | 1.00 | | | **6.00** | 906.40 | **5438.00** |
| | Basic Rate | 880 | | | | | | | |
| | 3% area weightage | 26.40 | | | | | | | |
| | Total | 906.40 | | | | | | | |
| 23 | Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable ( confirming to IS 1554) (P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14) | Mtr | | | | | | | |
| | | | 6 | 23.00 | | | **138.00** | 169.95 | **23453.00** |
| | Basic Rate | 165 | | | | | | | |
| | 3% area weightage | 4.95 | | | | | | | |
| | Total | 169.95 | | | | | | | |
| 24 | Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces (P.NO - 554, I.NO - 12 (b), BWSSB SR 13-14) | Mtr | | | | | | | |
| | | | 6 | 23.00 | | | **138.00** | 56.65 | **7818.00** |
| | Basic Rate | 55 | | | | | | | |
| | 3% area weightage | 1.65 | | | | | | | |
| | Total | 56.65 | | | | | | | |
| 25 | Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (P.NO - 555, I.NO - 15 (b), BWSSB SR 13-14) | Mtr | | | | | | | |
| | | | 6 | 4.00 | | | **24.00** | 294.58 | **7070.00** |
| | Basic Rate | 286 | | | | | | | |
| | 3% area weightage | 8.58 | | | | | | | |
| | Total | 294.58 | | | | | | | |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 26 | Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia (P.NO - 552, I.NO - 7 , BWSSB SR 13-14) | No's | | | | | | | |
| | | | 6 | | | | **6.00** | 1699.50 | **10197.00** |
| | Basic Rate | 1650 | | | | | | | |
| | 3% area weightage | 49.50 | | | | | | | |
| | Total | 1699.50 | | | | | | | |
| 27 | Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc, (P.NO - 555, I.NO - 16 (b) , BWSSB SR 13-14) | No's | | | | | | | |
| | | | 6 | | | | **6.00** | 271.92 | **1632.00** |
| | Basic Rate | 264 | | | | | | | |
| | 3% area weightage | 7.92 | | | | | | | |
| | Total | 271.92 | | | | | | | |
| 28 | Supplying shunt capacitor's confirming to IS 2834, 3phase 400/440 volts grade for power factor improvement of roating machinery capacitor in KVAR rating No's. (MR) | No's | | | | | | | |
| | | | 6 | | | | 6.00 | 1350.00 | **8100.00** |
| 29 | Providing and fixing Gun Metal Gate wheel valve confirming to IS specification of approved make as per direction including all lead and lift etc,. Complete. 50mm dia (P.NO - 103, I.NO - 13.79.6, PWD SR 13-14) | No's | | | | | | | |
| | | | 6 | 3.00 | | | **18.00** | 1515.80 | **27284.00** |
| | Basic Rate | 1430 | | | | | | | |
| | 6% area weightage | 85.80 | | | | | | | |
| | Total | 1515.80 | | | | | | | |
| 30 | Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches (P.NO - 521, I.NO - 2 (f), BWSSB SR 13-14) | No's | | | | | | | |
| | | | 6 | | | | **6.00** | 311.58 | **1869.00** |
| | Basic Rate | 302.5 | | | | | | | |
| | 3% area weightage | 9.08 | | | | | | | |
| | Total | 311.58 | | | | | | | |
| 31 | Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications (P.NO - 5, I.NO - 2.4, PWD SR 13-14) | Cum | | | | | | | |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | Dasarahalli, Surrounding Area and Amarajoythi layout Surrounding Area | | 1 | 1420.00 | 0.45 | 0.75 | **479.25** | | |
| | | | | | | | **479.25** | 223.66 | **107189.00** |
| | Basic Rate | 211 | | | | | | | |
| | 6% area weightage | 12.66 | | | | | | | |
| | Total | 223.66 | | | | | | | |
| 32 | Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.NO - 102, I.NO - 13.73.1, PWD SR 13-14) | Mtr | | | | | | | |
| | Dasarahalli, Surrounding Area and Amarajoythi layout Surrounding Area | | 1 | 1420.00 | | | **1420.00** | | |
| | | | | | | | **1420.00** | 352.98 | **501232.00** |
| | Basic Rate | 333.00 | | | | | | | |
| | **6% area weightage** | **19.98** | | | | | | | |
| | Total | 352.98 | | | | | | | |
| 33 | Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.NO - 6, I.NO - 2.11, PWD SR 13-14) | Cum | | | | | | | |
| | Dasarahalli, Surrounding Area and Amarajoythi layout Surrounding Area | | 1 | 1420.00 | 0.45 | 0.75 | **479.25** | | |
| | | | | | | | **479.25** | 59.36 | **28448.00** |
| | Basic Rate | 56.00 | | | | | | | |
| | 6% area weightage | **3.36** | | | | | | | |
| | Total | 59.36 | | | | | | | |
| 34 | KPTCL Deposit charges | No's | 6 | | | | **6.00** | 10500.00 | **63000.00** |
| 35 | Miscellaneous and Unforeseen Charges +8% | KRIDL charges + 1% Third party inspection charges. | | | | | 2931 | 10.16+3663 | **1424.00** |
| | | | | | | | | | **4000000.00** |

**Rupees Forty Lakh(s) Only**

**CERTIFICATE :**

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PRED S.R.2013-14 of Rural Engineering Department
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer

ADMINISTRATIVE APPROVAL
Accorded For Rs. Forty Lakhs only
Head of A/c. P-3112
51/16-17 15-09-16

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
Bangalore - 92

28/7/2016
Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Sub Division
Bangalore-24

Technical Sanction
Accorded For 40.00 lakh Rs
Head of A/C P3112
CER NO : 63 Dt: 21/10/16
JA CE (YNK)

N
152 - BYATARAYANAPURA AC
WARD NO: 5-JAKKURU
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PROPOSED WARD BOUNDARY
PART BOUNDARY WITH NUMBER
RAILWAY LINE
ROAD
SWD/ DRAIN/ TANK
Assistant Executive Engineer
Byatarayanapura Sub Division
B.B.M.P. Bangalore